

Remarks

Reconsideration and further examination of the above-identified patent application in light of the present Amendment, Reply, and Remarks is respectfully requested.

This Amendment has been made to put the application in condition for immediate allowance or in better form for appeal, if needed. No new issues have been raised which require a further search.

A Petition for a three month extension of time is enclosed along with the required extension fee.

Authorization is hereby given to charge any deficiency in fees or any other fees in connection with the above-identified patent application to our Deposit Account No. 23-0920.

Claims 1-6, 10-14, 16, 18 and 22-24 were pending prior to this Amendment.

Claims 7-9, 15, 17 and 19-21 have been canceled.

Claims 1, 3, 13, 16 and 18 have been amended to more particularly point out and distinguish applicant's invention. Antecedent basis and support for the amendment is found in the specification, original claims and drawings.

The matter objected to in claims 1-6, 10-14, 16, 18 and 22-24 have been corrected or canceled as per the Primary Examiner's requests in order to make the claims more definite and clear and better comply with 35 USC 112.

Claims 1-6, 10-14, 16, 18 and 22-24 are presently pending for the consideration of the Primary Examiner.

The undersigned attorney thanks the Primary Examiner for her useful comments and suggestions in the Advisory Action. Independent claims 1 and 13 have now been amended to clarify the language in the claims in the manner suggested by the Primary Examiner.

Claim 1 has now been amended to require applying, distributing or a sweeping UV light emitted UV LED chips equally at the same constant intensity on a particular UV curable ink on surfaces of printed products, articles, or other objects facing the UV LED chips, while simultaneously curing the particular UV curable ink to produce an identical degree of polymerization on each printed UV curable product, article, or other object that is being cured over all the surfaces facing the UV LED chips.

Young, U.S. Patent No. 6,561,640 ("Young") and Biegelsen et al. U.S. Patent No. 6,536,889 ("Biegelsen") do not disclose applying, distributing or sweeping UV light emitted

from UV LED chips equally at the same constant intensity on a particular UV curable ink on surfaces of printed products, articles, or other objects facing the UV LED chips, as required in applicant's amended claim 1. Furthermore, Young and Biegelsen do not disclose curing the particular UV curable ink to produce an identical degree of polymerization on each printed UV curable product, article, or other object that is being cured over all the surfaces facing the UV LED chips, as specified in applicant's amended claim 1.

Claims 2-6 and 10-12 are directly dependent upon applicant's independent amended claim 1 and, therefore, necessarily require all the method steps and limitations of applicant's amended claim 1. Claims 2-6 and 10-12 further require other steps and limitations which are not fairly taught or suggested by Young and Biegelsen, such as: reciprocating or oscillating UV LED chips in proximity to the UV curable ink at the curing station; maintaining the temperature of the UV LED chips generally constant; emitting fluorescent light; heating freshly printed UV curable ink with at least one heat lamp; emitting infra red light with at least one infra red lamp; etc.

Applicant's independent claim 13 has now been amended to require a controller that is operatively connected to UV LED chips for controlling and maintaining the intensity of UV light emitted from the UV LED chips at a constant level to apply and distribute UV light equally at the same intensity on a particular UV curable ink facing the UV LED chips to uniformly cure the particular UV curable ink facing the UV LED chips so as to produce an identical degree of polymerization of each printed UV curable product, article, or other object that is being cured over all the surfaces facing the UV LED chips.

Young and Biegelsen do not disclose a controller that is operatively connected to UV LED chips for controlling and maintaining the intensity of UV light emitted from the UV LED chips at a constant level to apply and distribute UV light equally at the same intensity on a particular UV curable ink facing the UV LED chips to uniformly the particular UV curable ink facing the UV LED chips so as to produce an identical degree of polymerization of each printed UV curable product, article, or other object that is being cured over all the surfaces facing the UV LED chips, as now provided in applicant's amended independent claim 13.

Claims 14, 16, 18, and 22-24 are directly dependent upon applicant's amended independent claim 13 and, thereby, necessarily require all the structural elements, features and limitations of applicant's amended independent claim 13. Applicant's claims 14, 16, 18, and 22-24 also require further structural elements, features and limitations which are not fairly


taught or suggested in Young and Biegelsen, such as: a reciprocating mechanism for reciprocating the printing head; a sensor for sensing the temperature of UV LED chips; a controller that is operatively connected to the sensor to maintain the temperature of the UV LED chips at a generally constant temperature; a fluorescent lamp; a heat lamp; an infra red lamp, etc.

In summary, the pending claims have been amended as suggested by the Primary Examiner to more particularly point out distinguish applicant's claimed method and UV curing apparatus over the cited prior art references of record. Accordingly, it is respectfully submitted that the above-identified application is now in condition for allowance. A Notice of Allowance is respectfully requested.

The Primary Examiner is invited and encouraged to contact the undersigned attorney in order to expedite this application to allowance, if the preceding does not already place the above-identified application in condition for allowance.

Respectfully submitted,

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